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REMARKS

This Amendment is responsive to the Final Office Action dated July 28, 2003. All rejections and objections of the Examiner are respectfully traversed. Reconsideration is respectfully requested.

At paragraph 1 of the Office Action, the Examiner objected to claim 25 for informality. Amendments to claim 25 are believed to meet all requirements of the Examiner in this regard.

At paragraphs 2 through 13, the Examiner rejected claims 1 through 54 as being obvious under 35 U.S.C. 103, citing United States patent number 6,212,548 of DeSimone et al. ("DeSimone et al.") in combination with Network Working Group Request for Comments 1459 of Oikarinen et al. ("Oikarinen et al."). Applicants respectfully traverse this rejection.

DeSimone et al. disclose a system and method for multiple real-time text conversations ("chat sessions") in a client-server environment using messages including a conversation index, a conversation-initiator ID and a list of message recipients. In the DeSimone et al. system, each conversation is provided at client terminals as an individual window of a graphical user interface. DeSimone et al. teach that dropping and adding conversation participants may be performed using update messages. Peer-to-peer message handling in the DeSimone et al. system reduces the processing burden on servers, while allowing clients to perform control and display functions.

Oikarinen et al. describe the IRC (Internet Relay Chat) protocol for use with text based conferencing. Oikarinen et al. disclose that the IRC protocol was developed on systems using the TCP/IP network protocol, that IRC is a teleconferencing system, and that a typical IRC configuration involves a single server process forming a central point for clients or other servers to connect to, and performing the required message delivery/multiplexing and other functions.

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Nowhere in the combination of DeSimone et al. and Oikarinen et al. is there disclosed or suggested any method or system for managing a virtual private network that includes *receiving a request for a network device to join a virtual private network having a set of network devices*, the request received from the requesting network device and including an identifier of the requesting device, retrieving a set of identifiers identifying the network devices in the set of network devices in the virtual private network, forwarding a notify message identifying the requesting network device to each network device in the set of network devices, forwarding a join message to the requesting network device including the set of network device identifiers, *establishing an encrypted communication tunnel between the given network device for which the request is made, and at least one of the set of network devices*, as in the present independent claims 1, 14, 26, 39, 46 and 53.

In contrast, the systems described by DeSimone et al. and Oikarinen et al. enable participants, described as users of client terminals, to be added and removed from internet "chat rooms" provided through a windows-based graphical user interface using the Internet Relay Chat (IRC) Protocol. The chat rooms described in DeSimone et al. and Oikarinen et al. are private in the sense that only chat room members receive and are able to view messages sent among the participants of a given chat room. Neither DeSimone et al. nor Oikarinen et al. include any hint or suggestion of even the desirability of *providing encryption, and/or providing tunneling between network systems*. Moreover, the requests to join chat rooms described by DeSimone et al. and Oikarinen et al. are requests by and on behalf of user participants to join a virtual conversation provided by a virtual teleconferencing system, in contradistinction to the requests of the present independent claims, *which are for and on behalf of a network device to join a virtual private network (VPN)*.



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The well-known website www.techweb.com defines "tunneling" as follows:

Transmitting data structured in one protocol format within the format of another protocol. Tunneling allows other types of transmission streams to be carried within the prevailing protocol.

Another well-known Web site, www.whatis.com, provides the following definition for tunneling:

Tunneling is the transmission of data intended for use only within a private, usually corporate network through a public network in such a way that the routing nodes in the public network are unaware that the transmission is part of a private network. Tunneling is generally done by encapsulating the private network data and protocol information within the public network transmission units so that the private network protocol information appears to the public network as data. Tunneling allows the use of the Internet, which is a public network, to convey data on behalf of a private network.

Additionally, www.whatis.com provides the following definition of a Virtual Private Network (VPN):

A virtual private network (VPN) is a way to use a public telecommunication infrastructure, such as the Internet, to provide remote offices or individual users with secure access to their organization's network. A virtual private network can be contrasted with an expensive system of owned or leased lines that can only be used by one organization. The goal of a VPN is to provide the organization with the same capabilities, but at a much lower cost.

A VPN works by using the shared public infrastructure while maintaining privacy through security procedures and tunneling protocols such as the Layer Two Tunneling Protocol (L2TP). In effect, the protocols, by encrypting data at the sending end and decrypting it at the receiving end, send the data through a "tunnel" that cannot be "entered" by data that is not properly encrypted. An additional level of security involves encrypting not only the data, but also the originating and receiving network addresses.

Applicants respectfully submit that a person skilled in the art would be aware of definitions, such as the conveniently accessible examples given above, for "tunneling" and "virtual private network". Such definitions lead to a recognition that the techniques of DeSimone et al. and Oikarinen et al., which are for preserving a list of participants in a chat

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room so as to deliver text messages to the correct users, are far different from the system and method of the present independent claims, which calls for processing a request for a network device to join a virtual private network, that includes setting up an encrypted tunnel between the requesting network device and one of the other network devices in the virtual private network.

For the reasons stated above, Applicants respectfully urge that the combination of DeSimone et al. and Oikarinen et al. does not disclose or suggest all the features of the present independent claims 1, 14, 26, 39, 46 and 53. Accordingly, the combination of DeSimone et al. and Oikarinen et al. does not support a *prima facie* case of obviousness with regard to the present independent claims. As to the remaining claims, they each depend from claims 1, 14, 26, 39, 46 and 53, and are believed to be patentable over the combination of DeSimone et al. and Oikarinen et al. for at least the same reasons. Reconsideration of all pending claims is respectfully requested.

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Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone the undersigned Attorney at 978-264-6664 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

October 14 2003
Date

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